

Guidelines for Construction of Decks and Porches for Manufactured Homes

Note: These are only guidelines only and not intended to be all inclusive.

Decks and Porches must be self supporting.

Handrails:

- Required on steps with a rise of 30'' or more.
- Height of rail 34'' to 38'' off the leading edge of the tread.

Guardrails:

- Required on raised floor surfaces 30'' or more above grade.
- Height of rail 36'' minimum, except on the open side of stairs guardrails may be 34''.
- Openings in the rail system shall not allow a 4'' dia. sphere to pass through, except guardrails on the open side of stairs shall not allow a 4 3/8'' sphere to pass and the triangle formed by the riser, tread, and the bottom rail of the guard shall not allow a 6'' sphere to pass.

Stair Construction:

- Maximum riser height of 8''.
- Minimum tread depth of 9'' with a 1'' nosing or a 10'' tread.
- Two risers and one tread must equal between 24'' to 26''.
- Minimum stair width of 36'' (the hand rail can encroach 4.5'').

Footings:

- Are required under support columns and shall be placed on solid undisturbed soil. The size of the footing is based on the load imposed.
- Columns should be protected from lateral displacement at the footing.

Floor System:

- Joist must be supported by ledger strips with 3 -16d nails under each joist or properly sized joist hangers.
- Girders must be supported by columns by bolting, notching, or top support.

Tables have been provided to use for reference in sizing joist and girders.

Loudon County Planning and Codes Enforcement

Information referenced from the 2006 IRC, 1997 CABO Clip Board Notes, and the Southern Pine Council

Allowable Span for Girder Supporting One Floor Only
40psf Live Load, 10psf Dead Load, 1.00 Load Duration Factor

Span of Supported Floor Framing

Size of Wood Girder	4'	6'	8'	10'	16'
4"x 4"	5'-0"	4'-0"	3'-6"	3'-0"	2'-6"
4"x 6"	7'-6"	6'-0"	5'-6"	4'-6"	4'-0"
4"x 8" or 6"x 6"	10'-0"	8'-6"	7'-6"	6'-6"	5'-0"
4"x 10" or 6"x 8"	13'-0"	10'-6"	9'-6"	8'-6"	5'-6"
4"x 12" or 6"x 10"	16'-0"	12'-6"	11'-0"	10'-0"	8'-0"
Beams that are the same size as the joist used may be single ply if supported every 4'					

Spans are based on No. 2 lumber.

Span of supported floor is found by adding the unsupported floor framing on each side of the girder and dividing by 2.

Joist Span Chart (Based on No. 2 Pine)

Spacing of Joist O.C.				
Joist Size	12"	16"	19.2"	24"
2"x 6"	10'-9"	9'-9"	9'-2"	8'-6"
2"x 8"	14'-2"	12'-10"	12'-1"	11'-0"
2"x 10"	18'-0"	16'-1"	14'-8"	13'-1"
2"x 12"	21'-9"	18'-10"	17'-2"	15'-5"

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